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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/769,891

02/03/2004

Ralph Theodore Hofmeister

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EXAMINER

MURPHY, RHONDA L

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

01/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/769,891	Applicant(s) HOFMEISTER ET AL.	
	Examiner Rhonda Murphy	Art Unit 2616	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 is/are allowed.
- 6) ☒ Claim(s) 2, 7, 8 and 14 is/are rejected.
- 7) ☒ Claim(s) 3-6, 9-13 and 15-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because Figure 13a is a duplicate of Figure 13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 2 is rejected under 35 U.S.C. 102(e) as being anticipated by Sanderson et al. (US 2004/0223498 A1).

Regarding claim 2, Sanderson teaches a method of establishing pseudo-wires between an initiating provider edge node and a terminating provider edge node of a provider network so as to permit admission control, comprising:

initiating a pseudo-wire request from the initiating provider edge node requesting a new data flow having a network resource requirement (page 7-8, paragraphs 88-89);

searching an ingress resource table for available network resources on one or more data tunnels to determine if there is a sufficient amount of available network resources on one or more data tunnels connecting the initiating and terminating provider edge nodes to satisfy the new data flow (page 9, paragraph 117 and 119);

wherein upon the determination that there is a sufficient amount of available network resources to satisfy the new data flow, the method further comprises:

updating a packet table associated with the initiating provider edge node with the network resource requirement of the new data flow (page 11, paragraph 132-134);

updating the ingress resource table with the network resources to be consumed by the new data flow (page 11, paragraph 134); and

creating and sending a control message to the terminating provider edge node requesting a pseudo-wire to be set up between the initiating and terminating provider edge nodes to carry the new data flow (page 11, paragraph 134).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 7, 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderson et al. (US 2004/0223498 A1) in view of Gillett et al. (US 2003/0097443 A1).

Regarding claim 7, Sanderson teaches a method of establishing pseudo-wires between an initiating provider edge node and a terminating provider edge node of a provider network so as to permit admission control, comprising:

initiating a pseudo-wire request from the initiating provider edge node requesting a new data flow having network resource requirements (page 7-8, paragraphs 88-89);

determining if there is a sufficient amount of available network resources on one or more data tunnels connecting the initiating and terminating provider edge nodes to satisfy the new data flow (page 9, paragraph 117 and 119); and

Sanderson fails to explicitly teach shuffling at least one existing pseudo-wire to accommodate the network resource requirements the new data flow if said determining step determines that there are insufficient available network resources.

However, Gillett teaches shuffling at least one existing pseudo-wire to accommodate the network resource requirements the new data flow if said determining step determines that there are insufficient available network resources (page 5, paragraph 59; insufficient capacity to service request...redirect the request).

Thus, it would have been obvious to one skilled in the art to shuffle a wire when there aren't sufficient resources available, for the purpose redirecting data and allowing data to flow to its destination.

Regarding claim 8, Sanderson teaches the method according to claim 7. Gillett further teaches shuffling further including exchanging control messages between the initiating and terminating provider edge nodes to adjust the shuffled pseudo-wires and ensure

that the existing pseudo-wires are not disturbed due to said shuffling (page 5, paragraph 59).

Regarding claim 14, Sanderson teaches the method according to claim 7, said determining step searching an ingress resource table for available network resources on one or more data tunnels existing between the initiating and terminating provider edge nodes (page 11, paragraph 133-134).

Allowable Subject Matter

7. Claim 1 is allowed. Prior art fails to particularly disclose a control module for a provider edge node of a provider network, comprising: a session table storing control information relating to peering sessions between the provider edge node and the provider network, a circuit table storing, for each data tunnel, data tunnel identification data, encapsulation label data, outgoing data packet interface identification data, CIR data, class data, setup priority data, and holding priority data; a packet table storing, for each data packet flow, packet data interface identification data, data tunnel identification data, encapsulation label data, CIR data, class data, setup priority data, and holding priority data; an ingress resource table storing, for each data tunnel, data tunnel identification data, physical bandwidth data and available bandwidth for each of a plurality of classes; an egress resource table storing, for each egress data interface, egress data interface identification data, physical bandwidth data, available total bandwidth data, and available bandwidth for each of a plurality of classes; admission control logic operatively connected to said session table, said circuit table, said packet

table, said ingress resource table, and said egress resource table; said admission control logic referring to said session table, said circuit table, said packet table, said ingress resource table, and said egress resource table to perform admission control on behalf of a new data flow requesting ingress to and egress from the provider network.

8. Claims 3 – 6, 9 – 13 and 15-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 9:00 - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
Art Unit 2616

RM

A handwritten signature in black ink, appearing to read 'Huy D. Vu', with a long horizontal flourish extending to the right.

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600